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10/678,155	10/06/2003	Paul Hayward Kelly	DIXI01-00011	5740

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KUMAR, RAKESH	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/678,155	**Applicant(s)** KELLY ET AL.
	Examiner Rakesh Kumar	**Art Unit** 3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

FINAL REJECTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9,14-17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittern, Jr, et al. (U.S. Patent Number 6,302,293) in view of O. T. Thompson et al. (U.S. Patent Number 2,359,398) and in further view of Percy et al. (U.S. Patent Number 5,651,476).

Referring to claims 1,4,14,16 and 28. Wittern discloses a method and an apparatus of a vending machine 10 comprising: a cabinet frame 12 including top, bottom, side and rear walls that collectively define a central cavity (Figure 1A); a door pivotally mounted to the cabinet frame 12, said door being selectively movable between an open condition, wherein access to the central cavity is permitted for loading of product containers 8 into the vending machine 10, and a closed condition, wherein dispensing of product containers 8 is permitted; and a plurality of column walls 20A-20H arranged within the cabinet frame 12 and separating the central cavity into a plurality of product stack areas C1-C7, each of said plurality of column walls 20A-20H being formed from a material sheet (Col. 7 line 60) a having top, bottom and side edges that define a substantially planar wall surface 20A-20H (Figure 1 and 3).

Wittern does not disclose the wall surface including a plurality of integrally formed stiffening elements extending between the side edges and an alignment member for positioning product.

Wittern discloses slot members 38 disposed on the column wall 20A functioning to circumvent the loading stress experienced by the wall panel above the slot 38 around to the edges of the slot by a lack of material as a result of the removal of the material to create the slot in the column wall. The lack of material within the slot results in the loading above the slot to be transferred around the edges of the slots thus functioning to decouple the stresses in the panel to the periphery of the edge of the slot thus, inherently acting as a decoupling member for isolating stresses in the column wall.

Thompson discloses shelves 34 constructed using thin sheet metal for vending flat articles. Each shelf 34 is stamped to provide a peripheral bead 35 and a plurality of diagonally extending ribs 36 between the side edges, which serve to reinforce the shelf. Members 35 and 36 serve to minimize bowing of the shelf walls under a weight of the product containers.

Percy discloses a deflection plate 70 acting as an alignment member integrally formed of the wall surface 44 in guide containers 38 (Figure 4, Col. 5 line 12-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittner to include slots specifically positioned to isolate stresses between each portion segment of the column wall because the stresses could by localized to a particular area of the column wall and reduce bending.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittern to include integrally formed reinforcing structure members disposed on the column wall of the vending machine as taught by Thompson to minimize bowing and warping under the stress from the loading of the containers because adding the reinforcing structure members to the plane of the column walls would allow the walls to be manufactured with a lighter gauge material while minimizing deformation thus reducing cost.

It would have been further obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittern in view of Thompson to include the alignment structure 60, as shown in Wittern to be ***integrated integrally*** in the column wall as taught by Percy to reduce material and manufacturing cost of the vending machine.

In regards to claim 28, although Wittern, Thompson and Percy do not explicitly disclose a method of using their apparatus, the method steps recited in the claim would inherently be performed when using the apparatus of Wittern as modified by Thompson and Percy as discloses above in its usual and expected fashion.

Referring to claim 15. See claim rejection 1 above. Wittern in view Thompson teach reinforcing stiffener structure 36 takes the form of two diagonals crossing (Figure 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittern to include an additional reinforcing stamped bead crossing the two diagonals in the center and form of an asterisk shape structure as taught by Thompson. By adding more stamped reinforcing members on the planar surface the strength of the column wall to resist loading forces can be increased.

Referring to claim 2. Wittern disclose a vending machine 10 wherein each of the plurality of column walls 20A-20H includes top *(region extending from member 22A through just below member 36 at the rectangular cutouts; see Figure 3)*, intermediate portions *(region between rectangular cutouts through top of member 24A)* and bottom *(region including the length of member 24A)*, said top and intermediate portions defining a storage region and said bottom portion defining a dispensing region (Figure 1 and 2).

Referring to claim 3. Wittern as modified by Thompson teaches of stamping a semi-bead configuration in the planar surface of the shelf member 34. The reinforcing extends across the entire planar surface of the shelf.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittern to include a plurality of stiffening elements that extent across the surface as taught by Thompson in the three regions and separately enclosed in the individual top, bottom and intermediate portions of the column wall because the reinforcing elements can be localized to a specific section of the column walls to provide reinforcing and resistance to bending.

Referring to claim 5. See claim rejection 4 above. Wittern discloses portion of the column wall as being separated by narrow web members (narrow portion of the web material located at the opposite side of each slot 38 as compared to the full width of the wall).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittner to include slots specifically positioned to isolate stresses between each portion segment of the column wall thus each segment portion of the wall is separated by a narrow web material located at the ends of the slots because the stresses could by localized to a particular area of the column wall and reduce bending.

Referring to claims 6 and 8. Wittern in view of Thompson and Percy teaches the alignment member 70 in the column wall 44 separates the bottom portion from the intermediate portion only through a narrow area through which only a single container 38 can pass (Figure 4; Percy). Percy discloses the alignment member 70 formed in the dispensing region (Figure 4).

Referring to claims 7 and 9. Wittern in view of Thompson and Percy disclose the alignment member 70 includes a guide element surface (curved surface of the alignment member) wherein the guide element surface being adapted to guide the product container 38 away from the column wall 44 and toward the front flange 48 (Figure 4, Col 5 line 12-20).

Regarding claims 10 and 33. Wittern in view of Thompson and Percy disclose the alignment member 70 as a thin sheet material, which is made by stamping the shape out of a sheet panel.

Referring to claim 17. In regards to claim 17, Wittern in view Thompson teaches the material used to manufacture the shelf wall as a "thin sheet metal" (Col. 3 line 10).

It is broadly construed and generally understood to mean a range of thickness that allow the material to be supported by its own weight and not being excessively thick as to make the stamping process effective, thus its is understood that 16 gauge sheet metal is within the range of materials as is discloses by the teaching of Thompson. Such a selection would be well within the level of skill of an artisan.

Claims 11-13,18-23, 24-27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittern in view of Thompson and Percy as applied to claim 1 above, and further in view of Newbury (U.S. Patent Number 4,498,584).

Referring to claims 11,12,18,20, 22, 24 and 31. See claims rejections 1 and 5 above. Newbury discloses a plurality of stiffening elements 13 defining an elongated, narrow slot extending the sidewall 3 (Figure 3, Col. 7 line 21-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Wittern in view of Thompson and Percy to include an elongated, narrow slot stiffening elements oriented in the horizontal direction as taught by Newbury from one side edge to another in the column wall because the loading stresses can be directed to the edges of the narrow slots.

In regards to claim 31, although Wittern in view of Thompson, Percy and Newbury do not explicitly disclose a method of using their apparatus, the method steps recited in the claim would inherently be performed when using the apparatus of Wittern in view of Thompson, Percy and Newbury as discloses above in its usual and expected fashion.

Referring to claim 19. In regards to claim 19, Wittern disclose a vending machine 10 wherein each of the plurality of column walls 20A-20H includes top *(region extending from member 22A through just below member 36 at the rectangular cutouts; see Figure 3)*, intermediate portions *(region between rectangular cutouts through top of member 24A)* and bottom *(region including the length of member 24A)*, said top and intermediate portions defining a storage region and said bottom portion defining a dispensing region (Figure 1 and 2).

Referring to claims 13, 23, 29 and 32. See claim rejection 12 above. Wittern in view of Thompson, Percy and Newsbury teaches each of the plurality of stiffening elements 35 and 36 (Thompson) being stamped onto the material sheet (Figure 2, 9 and 14, Col. 2 line 13).

In regards to claims 29 and 32, although Wittern in view of Thompson, Percy and Newbury do not explicitly disclose a method of using their apparatus, the method steps recited in the claim would inherently be performed when using the apparatus of Wittern in view of Thompson, Percy and Newsbury as discloses above in its usual and expected fashion.

In regards to claim 21 see claim rejection 3 above.

Referring to claim 25. Wittern in view of Percy discloses the alignment member 70 formed in the dispensing region (Figure 4) on the column wall.

Referring to claim 26. In regards to claim 26, Wittern in view Percy discloses the alignment member 70 includes a guide element surface (curved surface of the alignment member) wherein the guide element surface being adapted to guide the product container 38 away from the column wall 44 and toward the front flange 48 (Figure 4, Col 5 line 12-20).

Referring to claims 27 and 30. See claim rejection 3 above. In regard to claim 27, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Wittern in view Thompson to include individually placed decoupling stiffening members 35 and 36 in each of the top, bottom and intermediate portion of the column walls. Furthermore, the decoupling elements 35 and 36 can be arranged below the alignment member 70 (Percy). The stiffening members 35 and 36 would act in minimizing the forces transferred to the bottom portion of the dispensing area.

In regards to claim 30, although Wittern in view of Thompson, Percy and Newbury do not explicitly disclose a method of using their apparatus, the method steps recited in the claim would inherently be performed when using the apparatus of Wittern in view of Thompson, Percy and Newsbury as discloses above in its usual and expected fashion.

Response to Arguments

Applicant's arguments filed 10/12/2007 have been fully considered but they are not persuasive. See rejections above.

Applicant's arguments filed 02/06/2006 have been fully considered but they are not persuasive.

Referring to claims 1,14,16 and 28. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the Applicant argues that "none of the references provide any motivation for modifying the column wall as taught be Wittern". The office only relies on the teaching disclosed by Wittern, Thompson and Percy, in particular Wittern discloses a column walls constructed of panel material to form encasing boundaries for a storage area in a vending machine, Thompson teaches of a thin flat panel material being used as a shelf is made to resist bending and bowing stresses by incorporating a series of stamped bead like structure in the panel material. It is the view of the Office that the teachings of stamping a bead into a sheet panel will intrinsically strength a light-gauge material to resist greater loading conditions. Thus, it is understood that the column wall panel material of Wittern can be incorporated with corrugations to enhance the strength of the column wall without regard to whether the panel are disposed in a vertical direction (a wall) or a horizontal direction (a floor).

In addition, the Applicant argues, "the column areas to be sized so as to receive a single product container. There is simply to no need for the deflection plate. The Office directs the Applicants attention to Figure 13, wherein multiple containers (9) are positioned in the storage space. Furthermore, the Applicants attention is also directed to Wittern use of a deflection plate (60) as disclosed in Figure 2.

Regarding claim 18 see above. The Office relies on the teaching as disclosed in Figure 3 of Newburry and this teaching of increasing the vertical strength of a container wall by adding corrugations (1) formed in the wall (see paragraph 7 line 20-26).

Applicant's arguments filed 08/04/2006 have been fully considered but they are not persuasive.

The applicant argues Thompson teaches, “a plurality of vertical spaced shelves that are provided with a peripheral bead and a diagonally extending rib” and that Thompson “does not disclose providing the beads ...on wall portions or column walls”. It is understood that the cited reference of Thompson teaches a light gauge sheet metal panel can be embossed with a semicircular bead into the surface of the panel to increase its resistance to bend, warping and bowing. In the view of the Office, it would have been obvious for one skilled in the art at the time the invention was made to have included bead like configurations in thin column wall panels to increase their resistance to bending and warping as utilized by the shelves of Thompson.

The applicant argues, “the stiffening elements would create a bulge or raised portion that would interfere with separators 30A and 30B...would not even consider providing integrally formed stiffening elements.” In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, a light gauge panel can be incorporated with stamped bead configurations to provide additional resistance to bending.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cheng (US 6,373,695) discloses member 112 as a reinforcing member.

Pavol (US 6,633,481) discloses load transfer member slots 135 Figure 4.

Davis (US 2,180,317) reinforcing structures 8 on panels.

Dayton (US 2,302,194) reinforcing configurations on panel Figure 1.

Aschheim (US 6,012,256) cutout 6a used to transfer loads around openings.

Anderson (US 6,209,842) cutout shown in wall panels Figure 1.

expire later than SIX MONTHS from the mailing date of this final action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

RK

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